REMARKS

The non-final Office Action mailed March 9, 2006, has been carefully considered. Reconsideration in view of the above amendments and the following remarks is respectfully requested.

Claims 1-9 and 27-30 are pending in the application. Claims 27-34 are new. Support for claims 27-34 is found throughout the specification including, for example, page 9, line 25 – page 10, lines 7; page 17, lines 3-7, 12-13, 16-19, and 20-22.

Claims 1-9 are rejected.

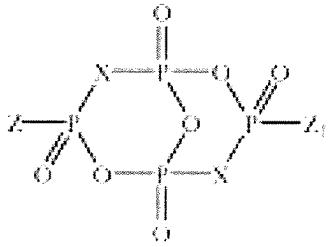
Applicant thanks the Examiner for withdrawing the rejections under §112 and §103.

The following sections correspond to those in the office action.

Claims Rejected under 35 U.S.C. §103

Claims 1-9 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over *Glonek, et al.* (Full Anydrization...1975), in combination with *Ingall, et al.* (WO 92/174488) or *Zatorski, et al.* (Chemical Synthesis of Benzamide...1996 May). The rejection is respectfully traversed.

The primary reference *Glonek* does not teach a compound having the following structure:

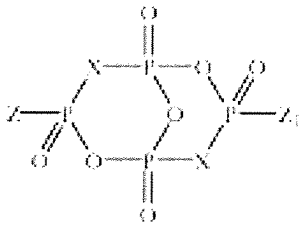


wherein

Z and Z_1, are the same or different and are alkyl, aralkyl, aryl, aminoalkyl, alkyloxy, aralkyloxy, alkylamino, aralkylamino, arylamino, alkylmercaptan, aralkylmercaptan, arylmercaptan, carbohydrate, nucleoside, steroid, or substituted glyceride; and

X is methylene (-CH_2-), mono- or di-halo methylene,

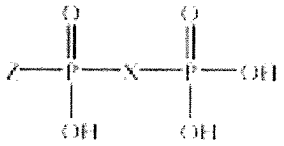
as recited in present claim 1. *Glonek* also does not teach a method for the preparation of a compound having the following structure:



wherein

Z and Z_1 are the same or different and are alkyl, aralkyl, aryl, aminoalkyl, alkyloxy, aralkyloxy, alkylamino, aralkylamino, arylamino, alkylmercaptan, aralkylmercaptan, arylmercaptan, carbohydrate, nucleoside, steroid, or substituted glyceride; and

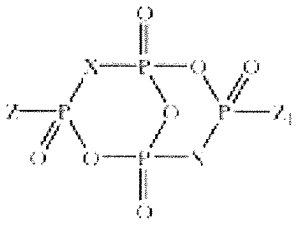
X is methylene ($-CH_2-$), mono- or di-halo methylene; which method comprises reacting a compound having the following structure:



(Zp_2)

wherein Z and X are as described, with a dehydrating agent as recited in claim 4.

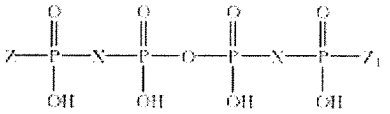
Glonek also does not teach a method for the preparation of a compound having the following structure:



wherein

Z and Z_1 are the same or different and are alkyl, aralkyl, aryl, aminoalkyl, alkyloxy, aralkyloxy, alkylamino, aralkylamino, arylamino, alkylmercaptan, aralkylmercaptan, arylmercaptan, carbohydrate, nucleoside, steroid, or substituted glyceride; and

X is methylene (-CH_2-), mono- or di-halo methylene; which method comprises reacting a compound having the following structure:



(Zp_4Z_1)

wherein Z, Z_1 and X are as defined above, with a dehydrating agent as recited in claim 8.

Glonek mentions a process of making methylene disphosphonic acids using dicyclohexylcarbodiimide. However, *Glonek's* substituents, such as -OH (VII) or DCC adduct (V), do not correspond to those Z and Z_1 substituents and are thus different compounds than those recited in the present claims. Thus, *Glonek* does not disclose the compounds, or methods of making as recited by the present claims.

Ingall mentions the preparation of bis-phosphate ATP analogs using the compounds of formula V on page 4 of the reference having a Z-Q substituent where Q is CR^1R^2, R is CR^3R^4, where R^1-R^4 are H or halo, and Z is an acidic moiety . However, *Ingall* does not teach or suggest a compound nor the methods of making as recited in the present independent claims 1, 4, or 8. Specifically, *Ingall* does not suggest a method of reacting a compound of structure Zp_2 nor Zp_4Z_1, with a dehydrating agent to obtain the present tetraphosphonate bicyclic trianhydrides. Accordingly, *Ingall* cannot provide the above mentioned deficiencies in *Glonek* nor is it clear that the references when combined as suggested by Examiner would ever produce the present compounds.

Thus, *Glonek* and *Ingall,* in combination, do not teach or suggest a compound or a method of making as recited in the present independent claims 1, 4, or 8.

Applicant respectfully submits that the present independent claims, and claims dependent thereon, are not *prima facie* obvious over the cited references. Contrary to the Examiner's conclusion, the cited references do not provide a motive or suggestion to combine, or a reasonable expectation of success of arriving at the recited compounds or methods since the cited references do not provide all the claimed elements or the relationship of claimed elements, or a description of how to make and use the claimed compounds. The Examiner's basis for the combination of the references (i.e., motivated to modify), neither follows from the references themselves nor from the problem that confronted the inventor before the invention was made.

The Examiner stated that *Zatorski* teaches the treatment of (isopropylidene-ribofuranosyl) benzamide as seen in the scheme 1 on page 1289 [sic, 2423] of the reference.

The Examiner stated that since the process and mechanism of making the core is disclosed in *Glonek*, one of skill in the art would use the different Z substitutions as taught by the *Ingall* or the *Zatorski* reference to obtain the compounds of the invention.

Applicant's representative respectfully disagrees with the Examiner's conclusion that *Glonek* "discloses the core" because of the structural differences mentioned above. Alternatively, or additionally, Applicant's representative respectfully disagrees with the Examiner's conclusion that *Glonek* "discloses the process and mechanism of making the core" since neither correspond to the present claims. Neither *Ingall* nor *Zatorski* teach the present compounds or methods having the core or the recited Z, Z_1, and X substituents.

Accordingly, the cited references, taken alone or in combination, do not provide a reasonable expectation of success of arriving at the recited compounds or methods since the cited references do not provide all the claimed elements and the relationship of claimed elements, or a description of how to make and use the claimed compounds.

In view of at least the above remarks, the above rejection of claims 1-9 under 35 U.S.C. 103(a) is believed to be overcome. Applicant respectfully requests that the rejection be withdrawn.

Conclusion

The claims are believed to be in a condition for allowance. A Notice of Allowance is respectfully requested. If the Examiner wishes to discuss the merits of this application, please contact Applicants' representative at 612-371-5267 or at the number below.

Respectfully submitted,
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